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GROUP 2601

PATENT
Docket No. 5634.109

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: John C. Harvey and James W.
Cuddihy

Serial No.: 08/444,788

Filing Date: May 19, 1995

For: Signal Processing Apparatus and
Methods

Group Art Unit: 2602/348

Examiner:

#8

Assistant Commissioner of Patents
Washington D.C. 20231

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56(a) and in conformance with the procedures of 37 C.F.R. §§ 1.97-98 and M.P.E.P. § 609, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached Form PTO-1449.

The above-referenced application claims priority under 35 U.S.C. § 120 of the following applications:

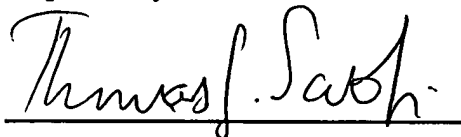
<u>Serial No.</u>	<u>Filing Date</u>	<u>Patent No.</u>
08/113,329	August 30, 1993	Pending
08/056,501	May 3, 1993	5,335,277
07/849,226	March 10, 1992	5,233,654
07/588,126	September 25, 1990	5,109,414
07/096,096	September 11, 1987	4,965,825

Applicants believe that all references cited on the attached PTO 1449 form were cited by or submitted to the PTO in one or more of the cases cited above or in U.S. Patent Application Serial No. 06/829,531, filed February 15, 1986 now U.S. Patent No. 4,704,725 and/or U.S. Patent Application Serial No. 06/317,510, filed November 3, 1981 now U.S. Patent No. 4,694,490. Therefore, no copies of the listed references are provided herewith. It is respectfully requested that the information above be expressly considered during the prosecution of this Application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

CERTIFICATION AND/OR FEE

Since this IDS is being filed pursuant to 37 C.F.R § 1.97(b) before the later of three months after the filing date of the above-referenced application or the date of receipt of the first Office Action on the merits, no certification or fee is required.

Respectfully submitted,

A handwritten signature in cursive script, reading "Thomas J. Scott, Jr.", written over a horizontal line.

Thomas J. Scott, Jr. (Reg. No. 27,836)

Dated: December 15, 1995

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INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

CITATION FORM

Attorney Docket No.

05634.0109

Serial No.

08/444,788

Applicant(s)

John C. Harvey and James W. Cuddihy

Filing Date

May 19, 1995

Group/Art Unit

2733

UNITED STATES PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	Re 27,810	November 20, 1973	Buehrle	325/321	
	2,418,127	April 1, 1947	Labin	178/44	
	2,563,448	August 7, 1951	Aram	178/5.1	
	3,071,649	January 1, 1963	Goodall	179/1.5	
	3,107,274	October 15, 1963	Roschke	178/5.1	
	3,133,986	May 19, 1964	Morris et al.	178/5.1	
	3,251,051	May 10, 1966	Harries	340/345	
	3,470,309	September 30, 1969	Nyberg	178/5.1	
	3,478,166	November 11, 1969	Reiter et al.	178/5.1	
	3,526,843	September 1, 1970	Sanville	329/104	
	3,546,684	December 8, 1970	Maxwell et al.	340/172.5	
	3,639,686	February 1, 1972	Walker et al.	178/5.8R	
	3,649,749	March 14, 1972	Gibson	178/5.6	
	3,651,261	March 21, 1972	Guanella	178/22	
	3,666,888	May 30, 1972	Sekimoto	178/69.5 TV	
	3,723,637	March 27, 1973	Fujio et al.	178/5.2R	
	3,746,799	July 17, 1973	Gentges	178/22	
	3,755,624	August 28, 1973	Sekimoto	178/69.5 TV	
	3,769,579	October 30, 1973	Harney	325/31	
	3,773,979	November 20, 1973	Kirk, Jr. et al.	179/15 FD	
	3,777,053	December 4, 1973	Wittig et al.	178/5.1	
	3,789,131	January 29, 1974	Harney	178/5.1	
	3,794,922	February 26, 1974	Osborn et al.	325/53	
	3,795,763	March 5, 1974	Golding et al.	178/5.6	
	3,813,482	May 28, 1974	Blonder	178/5.1	
	3,826,863	July 30, 1974	Johnson	178/5.1	
	3,859,596	January 7, 1975	Jannery et. al.	325/31	
	3,882,289	May 6, 1975	Walding et al.	200/11 D	
	3,885,089	May 20, 1975	Callais et al.	178/5.1	
	3,889,054	June 10, 1975	Nagel et al.	178/6.8	
	3,894,177	July 8, 1975	Howell et al.	178/5.6	
	3,896,262	July 22, 1975	Hudspeth et al.	178/5.1	

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	3,896,266	July 22, 1975	Waterbury	179/1 SB	
	3,916,091	October 28, 1975	Kirk, Jr. et al.	178/5.1	
	3,924,059	December 2, 1975	Horowitz	178/5.1	
	3,950,618	April 13, 1976	Bloisi	179/2 AS	
	3,958,081	May 18, 1976	Ehram et al.	178/22	
	3,975,585	August 17, 1976	Kirk, Jr. et al.	178/5.1	
	3,990,012	November 2, 1976	Karnes	325/308	
	3,996,586	December 7, 1976	Dillon et al.	340/347 DD	
	4,004,085	January 18, 1977	Makino et al.	340/324	
	4,008,369	February 15, 1977	Theurer et al.	358/84	
	4,013,875	March 22, 1977	McGlynn	235/150.2	
	4,015,286	March 29, 1977	Russell	358/13	
	4,019,201	April 19, 1977	Hartung et al.	358/124	
	4,020,419	April 26, 1977	Caspari et al.	325/421	
	4,024,574	May 17, 1977	Nieson	358/117	
	4,024,575	May 17, 1977	Hamey et al.	358/118	
	4,027,267	May 31, 1977	Larsen	329/106	
	4,027,331	May 31, 1977	Nicol	358/135	
	4,042,958	August 16, 1977	Saylor et al.	358/141	
	4,044,376	August 23, 1977	Porter	358/84	
	4,045,814	August 30, 1977	Hartung et al.	358/124	
	4,054,911	October 18, 1977	Fletcher et al.	358/141	
	4,064,490	December 20, 1977	Nagel	364/2000	
	4,070,693	January 24, 1978	Shutterly	358/123	
	4,075,660	February 21, 1978	Horowitz	358/124	
	4,079,419	March 14, 1978	Seigle et al.	358/193	
	4,081,754	March 28, 1978	Jackson	325/396	
	4,081,832	March 28, 1978	Sherman	358/124	
	4,086,434	April 25, 1978	Bocchi	79/2 AM	
	4,088,958	May 9, 1978	Suzuki et al.	325/396	
	4,091,417	May 23, 1978	Nieson	358/117	
	4,095,258	June 13, 1978	Sperber	358/120	
	4,096,542	June 20, 1978	Pappas et al.	361/196	
	4,104,681	August 1, 1978	Saylor et al.	358/141	
	4,107,734	August 15, 1978	Percy et al.	358/84	
	4,107,735	August 15, 1978	Frobach	358/84	
	4,112,317	September 5, 1978	Everswick	307/308	
	4,112,383	September 5, 1978	Burgert	329/50	
	4,114,841	September 19, 1978	Muhlfelder et al.	244/166	
	4,120,003	October 10, 1978	Mitchell et al.	358/142	
	4,124,887	November 7, 1978	Johnson et al.	364/107	
	4,126,762	November 21, 1978	Martin et al.	179/2A	
	4,135,213	January 16, 1979	Wintfeld et al.	358/142	

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	4,142,156	February 27, 1979	Freund	325/309	
	4,145,717	March 20, 1979	Guif et al.	358/121	
	4,148,066	April 3, 1979	Saylor	358/127	
	4,156,253	May 22, 1979	Steudel	358/11	
	4,156,931	May 29, 1979	Adelman et al.	364/900	
	4,163,252	July 31, 1979	Mistry et al.	358/118	
	4,180,709	December 25, 1979	Cosgrove et al.	179/2 AM	
	4,199,656	April 22, 1980	Saylor	178/66.1	
	4,199,781	April 22, 1980	Doumit	358/83	
	4,199,809	April 22, 1980	Pasahow et al.	364/200	
	4,207,524	June 10, 1980	Purchase	375/22	
	4,214,273	July 22, 1980	Brown	358/188	
	4,215,366	November 13, 1984	Davidson	358/124	
	4,216,497	August 5, 1980	Ishman et al.	358/84	
	4,222,068	September 9, 1980	Thompson	358/120	
	4,225,884	September 30, 1980	Block et al.	358/122	
	4,245,246	January 13, 1981	Cheung	358/124	
	4,246,611	January 20, 1981	Davies	358/194	
	4,247,947	January 27, 1981	Miyamoto	455/38	
	4,250,521	February 10, 1981	Wright	358/8	
	4,258,386	March 24, 1981	Cheung	358/84	
	4,266,243	May 5, 1981	Shutterly	358/121	
	4,272,784	June 9, 1981	Saito et al.	358/127	
	4,273,962	June 16, 1981	Wolfe	179/7.1R	
	4,292,650	September 29, 1981	Hendrickson	358/123	
	4,295,155	October 13, 1981	Jarger et al.	358/12	
	4,301,542	November 17, 1981	Weintraub et al.	455/353	
	4,305,101	December 8, 1991	Yarbrough et al.	360/69	
	4,310,854	January 12, 1982	Baer et al.	358/143	
	4,316,217	February 16, 1982	Rifken	358/86	
	4,318,047	March 2, 1982	Dawson	328/112	
	4,323,921	April 6, 1982	Guillou	358/114	
	4,323,922	April 6, 1982	den Toonder et al.	358/117	
	4,329,711	May 11, 1982	Cheung	358/114	
	4,335,426	June 15, 1982	Maxwell et al.	364/200	
	4,340,906	July 20, 1982	den Toonder et al.	358/124	
	4,341,925	July 27, 1982	Doland	178/22.17	
	4,343,042	August 3, 1982	Schrock et al.	455/5	
	4,348,696	September 7, 1982	Beier	358/188	
	4,354,201	October 12, 1982	Sechet et al.	358/122	
	4,355,415	October 19, 1982	George et al.	455/185	
	4,358,672	November 9, 1982	Hyatt et al.	235/380	
	4,360,881	November 23, 1982	Martinson	364/493	

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	4,361,848	November 30, 1982	Poignet et al.	358/1	
	4,361,851	November 30, 1982	Asip et al.	358/84	
	4,361,903	November 30, 1982	Ohta	455/2	
	4,365,267	December 21, 1982	Tsuda	358/84	
	4,378,470	March 29, 1983	Murto et al.	179/2 C	
	4,382,256	May 5, 1983	Nagata	340/825.44	
	4,385,384	May 24, 1983	Rosbury et al.	371/22	
	4,386,436	May 31, 1983	Kocher et al.	455/151	
	4,388,643	June 14, 1983	Aminetzah	358/123	
	4,388,644	June 14, 1983	Ishman et al.	358/84	
	4,390,898	June 28, 1983	Bond et al.	358/1199	
	4,390,901	June 28, 1983	Keiser et al.	358/147	
	4,392,135	July 5, 1983	Ohyagi	340/825.44	
	4,393,277	July 12, 1983	Besen et al.	179/2 A	
	4,408,345	October 4, 1983	Yashiro et al.	455/3	
	4,411,017	October 18, 1983	Talbot	455/26	
	4,414,621	November 8, 1983	Bown et al.	364/200	
	4,415,771	November 15, 1983	Martinez	179/5R	
	4,418,425	November 29, 1983	Fennel et al.	455/27	
	4,424,533	January 3, 1984	Rzeszewski	358/167	
	4,425,578	January 10, 1984	Haselwood et al.	358/84	
	4,425,579	January 10, 1984	Merrell	358/86	
	4,425,664	January 10, 1984	Sherman et al.	375/8	
	4,427,968	January 24, 1984	York	340/310	
	4,429,385	January 31, 1984	Cichelli et al.	370/92	
	4,430,731	February 7, 1984	Gimple et al.	370/30	
	4,434,438	February 28, 1984	Rzeszewski	358/167	
	4,439,785	March 27, 1984	Leonard	358/120	
	4,450,481	May 22, 1984	Dickinson	358/114	
	4,450,531	May 22, 1984	Kenyon et al.	364/604	
	4,454,538	June 12, 1984	Toriumi	358/86	
	4,468,701	August 28, 1984	Burcher et al.	358/181	
	4,471,352	September 11, 1984	Soulliard et al.	340/825.44	
	4,475,123	October 2, 1984	Dumbauld et al.	358/114	
	4,476,535	October 9, 1984	Loshing et al.	364/480	
	4,484,218	November 20, 1984	Boland et al.	358/86	
	4,484,328	November 20, 1984	Schlaflly	370/85	
	4,488,179	December 11, 1984	Kruger et al.	358/181	
	4,489,220	December 18, 1984	Oliver	179/2 AM	
	4,489,316	December 18, 1984	MacQuivey	340/700	
	4,494,142	January 15, 1985	Mistry	358/118	
	4,496,975	January 29, 1985	Noirel	358/147	
	4,504,831	March 12, 1985	Jahr et al.	340/870.03	

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	4,506,387	March 9, 1985	Walter	455/612	
	4,510,623	April 9, 1985	Bonneau et al.	455/181	
	4,528,589	July 9, 1985	Block et al.	358/122	
	4,531,020	July 23, 1985	Wechselberger et al.	178/22.08	
	4,531,021	July 23, 1985	Bluestein et al.	178/22.08	
	4,540,849	September 10, 1985	Oliver	179/2 AM	
	4,543,616	September 24, 1985	Brooks	358/335	
	4,547,804	October 15, 1985	Greenberg	358/142	
	4,554,584	November 19, 1985	Elam et al.	358/165	
	4,558,464	December 10, 1985	O'Brien, Jr.	455/4	
	4,563,702	January 7, 1986	Heller et al.	358/119	
	4,566,030	January 21, 1986	Nickerson et al.	358/84	
	4,570,930	February 18, 1986	Matheson	273/1 E	
	4,578,536	March 25, 1986	Oliver et al.	179/2 AM	
	4,578,718	March 25, 1986	Parker et al.	360/10.3	
	4,592,546	June 3, 1986	Fascenda et al.	273/1 E	
	4,594,609	July 10, 1986	Romao et al.	358/119	
	4,595,952	June 17, 1986	Filliman	358/47	
	4,600,918	July 15, 1986	Belisomi et al.	340/711	
	4,600,921	July 15, 1986	Thomas	340/825.31	
	4,605,964	August 12, 1986	Chard	358/147	
	4,611,227	September 9, 1986	Brockhurst et al.	358/147	
	4,613,901	September 23, 1986	Gilhausen et al.	358/122	
	4,621,259	November 4, 1986	Schepers et al.	340/707	
	4,621,285	November 4, 1986	Schilling et al.	358/120	
	4,623,920	November 18, 1986	Dufresne et al.	358/122	
	4,626,892	December 2, 1986	Nortrup et al.	358/21 R	
	4,633,297	December 30, 1986	Skerlos et al.	358/22	
	4,636,858	January 13, 1987	Hague et al.	358/147	
	4,638,357	January 20, 1987	Heimbach	358/121	
	4,639,779	January 27, 1987	Greenberg	358/142	
	4,646,145	February 24, 1987	Percy et al.	358/84	
	4,649,533	March 10, 1987	Chorley et al.	370/58	
	4,658,290	April 14, 1987	McKenna	358/84	
	4,677,685	June 30, 1987	Kurisu	455/4	
	4,694,490	September 15, 1987	Harvey et al.	380/20	
	4,704,725	November 3, 1987	Harvey et al.	380/48	
	4,706,121	November 10, 1987	Young	358/142	
	4,710,919	December 1, 1987	Oliver et al.	370/96	
	4,710,955	December 1, 1987	Kauffman	380/10	
	4,718,107	January 5, 1988	Hayes	455/4	
	4,723,302	February 2, 1988	Fulmer et al.	455/2	
	4,736,422	April 5, 1988	Mason	380/120	

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	4,744,080	May 10, 1988	Brennand et al.	280/21	
	4,751,732	June 14, 1988	Kamitake	380/20	
	4,754,326	June 28, 1988	Kram et al.	364/900	
	4,768,144	August 30, 1988	Winter et al.	364/200	
	4,768,229	August 30, 1988	Benjamin et al.	380/20	
	4,782,401	November 1, 1988	Faerber et al.	358/335	
	4,785,420	November 15, 1988	Little	364/513.5	
	4,796,181	January 3, 1989	Wiedmer	364/406	
	4,803,725	February 7, 1989	Horne et al.	380/44	
	4,805,020	February 14, 1989	Greenberg	358/147	
	4,807,031	February 21, 1989	Broughton et al.	358/142	
	4,809,274	February 28, 1989	Walker et al.	371/37	
	4,816,904	March 28, 1989	McKenna et al.	358/84	
	4,837,799	June 6, 1989	Prohs et al.	379/224	
	4,839,917	June 13, 1989	Oliver	379/45	
	4,841,386	June 20, 1989	Schiering	360/69	
	4,843,482	June 27, 1989	Hegendorfer	358/335	
	4,849,817	July 18, 1989	Short	358/142	
	4,855,842	August 8, 1989	Hayes et al.	358/342	
	4,857,999	August 15, 1989	Welsh	358/84	
	4,862,268	August 9, 1989	Campbell et al.	358/141	
	4,864,615	September 5, 1989	Bennett et al.	380/21	
	4,876,736	October 24, 1989	Kiewit	455/2	
	4,879,611	November 7, 1989	Fukui et al.	360/69	
	4,885,579	December 5, 1989	Sandbank	340/825.72	
	4,885,632	December 5, 1989	Mabey et al.	358/84	
	4,888,638	December 19, 1989	Bohn	358/84	
	4,888,796	December 19, 1989	Olivo, Jr.	379/101	
	4,890,320	December 26, 1989	Monslow et al.	380/10	
	4,891,703	January 2, 1990	Noudan	358/142	
	4,897,867	January 30, 1990	Foster et al.	379/94	
	4,907,260	March 6, 1990	Prohs et al.	379/224	
	4,907,273	March 6, 1990	Wiedemer	380/16	
	4,908,707	March 13, 1990	Kinghorn	358/147	
	4,908,713	March 13, 1990	Levine	358/335	
	4,908,834	March 13, 1990	Wiedemer	380/5	
	4,908,845	March 13, 1990	Little	379/51	
	4,912,552	March 27, 1990	Allison, III et al	358/84	
	4,914,517	April 3, 1990	Duffield	358/191.1	
	4,930,158	May 29, 1990	Vogel	380/5	
	4,931,871	June 5, 1990	Kramer	358/142	
	4,931,877	June 5, 1990	Gebhardt et al.	358/335	
	4,935,870	June 19, 1990	Bork, Jr. et al.	364/200	

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	4,939,773	July 3, 1990	Katz	379/204	
	4,943,963	July 24, 1990	Waechter et al.	370/94.1	
	4,945,412	July 31, 1990	Kramer	358/142	
	4,945,563	July 31, 1990	Horton et al.	380/5	
	4,947,302	August 7, 1990	Callahan	362/233	
	4,949,187	August 14, 1990	Cohen	358/335	
	4,954,899	September 4, 1990	Tanabe et al.	358/191.1	
	4,959,720	September 25, 1990	Duffield et al.	358/191.1	
	4,963,994	October 16, 1990	Levine	358/335	
	4,963,995	October 16, 1990	Lang	358/335	
	4,965,825	October 23, 1990	Harvey et al.	380/9	
	4,967,273	October 30, 1990	Greenberg	358/142	
	4,975,951	December 9, 1990	Bennett	380/20	
	4,977,455	December 11, 1990	Young	358/142	
	4,982,430	January 1, 1991	Frezza et al.	380/50	
	4,989,104	January 29, 1991	Schulein et al.	360/72.1	
	4,991,011	February 5, 1991	Johnson et al.	358/141	
	4,991,025	February 5, 1991	Eigeldinger	358/310	
	4,993,003	February 12, 1991	Fechner et al.	368/47	
	4,993,066	February 12, 1991	Jenkins	380/16	
	4,994,908	February 19, 1991	Kuban et al.	358/86	
	4,995,078	February 19, 1991	Monslow et al.	380/10	
	5,001,554	March 19, 1991	Johnson et al.	358/86	
	5,002,491	March 26, 1991	Abrahamson et al.	434/322	
	5,003,384	March 26, 1991	Durden et al.	358/84	
	5,003,591	March 26, 1991	Kauffman et al.	380/10	
	5,010,459	April 23, 1991	Taylor et al.	362/85	
	5,012,510	April 30, 1991	Schaubs et al.	379/92	
	5,013,038	May 7, 1991	Luxenberg et al.	273/439	
	5,014,125	May 7, 1991	Pocock et al.	358/86	
	5,016,272	May 14, 1991	Stubbs et al.	380/5	
	5,016,273	May 14, 1991	Hoff	380/10	
	5,027,400	June 25, 1991	Baji et al.	380/20	
	5,029,207	July 2, 1991	Gammie	380/10	
	5,038,211	August 6, 1991	Hallenbeck	358/142	
	5,045,816	September 3, 1991	Bramhall et al.	332/105	
	5,045,947	September 3, 1991	Beery	358/192.1	
	5,047,867	September 10, 1991	Strubbe et al.	358/335	
	5,047,928	September 10, 1991	Wiedemer	364/406	
	5,055,924	October 8, 1991	Skutta	358/84	
	5,057,932	October 15, 1991	Lang	358/335	
	5,058,160	October 15, 1991	Banker et al.	380/20	
	5,062,136	October 29, 1991	Gattis et al.	380/18	

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS/ SUBCLASS	FILING DATE*
	5,067,149	November 19, 1991	Schneid et al.	379/224	
	5,072,418	December 10, 1991	Boutaud et al.	364/715.06	
	5,075,771	December 24, 1991	Hashimoto	358/84	
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	5,093,718	March 3, 1992	Hoarty et al.	358/84	
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